



**RELATIONSHIP BETWEEN SELF-REPORTED TIME AND OBJECTIVE
ULTRAVIOLET RADIATION EXPOSURE IN FAMILIES**

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ABSTRACT

Objectives: One of the best ways for individuals to prevent melanoma of the skin is by minimizing their ultraviolet radiation (UVR) exposure. The objective of this study is to examine the accuracy of self-reported sun exposure measures by examining the difference between self-reported time outside and objective measures of UVR.

Methods: Study participants (n=97 parent/child dyads) were asked to wear a Shade UV Sensor for 14 days and complete questionnaires reporting their outdoor activity times. Participants' reported outdoor activity times for each day were matched with their solar UVR at those times, in standard erythema doses (SED) measured by the Shade UV Sensor. Differences between the two were calculated and linear regressions were conducted to examine whether age, gender, and/or skin type predicted accuracy of self-reporting time outside compared to objectively measured UVR exposure.

Results: For both parent and child samples, device-measured SED was significantly greater than self-reported SED. For parents, neither age, gender, nor skin type significantly predicted how much better or worse parents were at reporting their UVR exposure. For children, girls had less of an SED difference between objective and self-report measures than boys ($p=.006$).

Conclusions: The significant difference between self-reported and objective measures of SED illustrate that parents and children may underestimate their personal UVR exposure through self-reported measures alone. Objective measures of UVR exposure from personal UV dosimeters/sensors could be important tools to use for obtaining a complete understanding of one's personal UVR exposure.